



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,539	02/24/2004	David Byron	12781.105802CIP	1539
24902	7590	07/18/2006	EXAMINER	
KENNETH J. LUKACHER SOUTH WINTON COURT 3136 WINTON ROAD SOUTH, SUITE 301 ROCHESTER, NY 14623			GORMAN, DARREN W	
			ART UNIT	PAPER NUMBER
			3752	

DATE MAILED: 07/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/785,539	BYRON ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Darren W. Gorman	3752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 02 May 2006 and 20 June 2006.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 5-7,14,15 and 22 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-4,8-13,16-21,23 and 24 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 24 February 2004 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All
  - b) Some \*
  - c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>07/02/2004</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election without traverse of invention Group I, claims 1-11, in the reply filed on May 2, 2006 is acknowledged. In view of the claim amendments filed therewith, all claims now depend from elected claim 1, thereby obviating the restriction requirement. Therefore, the restriction requirement between inventions Group I, Group II and Group III is hereby withdrawn. However, the species requirement, as set forth under paragraph 6 of the office action mailed April 3, 2006, is still deemed proper.
2. Applicant's election of species Group B in the reply filed on June 20, 2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). It is further noted that Applicant did not indicate a listing of the claims readable on the elected species, therefore, upon a review of the claims, the Examiner has determined that claims 1-4, 8-13, 16-21, 23 and 24 read on the elected species Group B.
3. Claims 5-7, 14, 15 and 22 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on June 20, 2006.

***Information Disclosure Statement***

4. The IDS filed on July 2, 2004 is hereby acknowledged and has been placed of record. Please find attached a signed and initialed copy of the PTO 1449.

It was noted that the “Other Prior Art – Non Patent Literature Documents” section (page 3 of 3) of the aforementioned information disclosure statement fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. The “Other Prior Art – Non Patent Literature Documents” section of the IDS has been placed in the application file, but the information referred to therein has not been considered.

### ***Drawings***

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “water tank”, as recited in claim 12, and the “mixing chamber” as recited in claim 20, must be shown or the features canceled from the claims. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

6. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

- The claim term “mixing chamber”, as recited in claim 20, is not found in the specification.

***Claim Objections***

7. Claims 13, 16-18, 21, 23 and 24 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Regarding claims 13 and 21, the recitation, “wherein said backflow valve comprises said two one-way valves separated by said weep chamber”, does not further limit the recitation, “a backflow valve having two one-way valves separated by a weep chamber”, as recited in claim 1.

***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

9. Claims 1-4, 8-13, 16-21, 23 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the recitation, “said backflow valve being positioned in fluid communication with the inlet of said pressure chamber such that the two one-way valves prevent fluid flow from said pressure chamber through the outlet”, is unclear. As recited on line 2, “an outlet” provides the antecedent basis for “the outlet” on line 6. As such, it is unclear how and why the two one-way valves of the backflow valve would “prevent fluid flow from said pressure chamber through the outlet [of the pressure chamber]”. It would seem that such an arrangement as claimed would render the disclosed apparatus inoperable. Further, with respect to claim 1, the claim on its own appears to be incomplete apparatus, which lends to the aforementioned indefiniteness issue. For example, claim 1 omits the element or elements, which the “backflow valve” is protecting from a backflow of fluid from the pressure chamber.

Regarding claim 12, the recited “liquid additive tank in fluid communication with said sprayer handle” is unclear. In view of the disclosure, the Examiner is unaware of any further element in addition to the recited “sealed vessel” that qualifies as a “liquid additive tank in fluid communication with said sprayer handle”. Is the “liquid additive tank” one and the same as the separately recited “sealed vessel” or are they separate and distinct elements?

Regarding claim 20, the recited “mixing chamber” is unclear. In view of the disclosure, the Examiner is unaware of any further element in addition to the recited “pressure chamber” and liquid additive “tank” that qualifies as a “mixing chamber”. Is the “mixing chamber” one and the same as the separately recited “pressure chamber” or are they separate and distinct elements?

Further, regarding claim 20, the recited “tank in fluid communication with said mixing chamber, said tank containing a liquid additive” is unclear. In view of the disclosure, the Examiner is unaware of any further element in addition to the recited “sealed vessel” that qualifies as a “tank in fluid communication with said mixing chamber, said tank containing a liquid additive”. Is the “tank” one and the same as the separately recited “sealed vessel” or are they separate and distinct elements?

***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1, 2, 11, 20 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Chapin, USPN 3,034,731.

The claims will be examined as well as understood by the Examiner.

Chapin shows a sprayer apparatus (see Figures 1 and 4), comprising: an externally pressurized water source having an outlet (end (84) of a conventional garden hose fed by a public water system); a pressure chamber/mixing chamber within a sprayer wand (10), the pressure

chamber/mixing chamber having an inlet portion (18) and an outlet portion (32); a backflow valve (54) having two one-way valves (44 and 56) separated by a weep chamber (no reference number; region between valve members 44 and 56), the backflow valve being positioned downstream of the outlet of the pressurized fluid source, and the backflow valve being upstream of and in fluid communication with the inlet of the pressure chamber/mixing chamber such that the two-one way valves prevent fluid flow from the pressure chamber/mixing chamber back into the outlet of the pressurized fluid source; and a tank/sealed vessel (2) containing liquid additive in fluid communication with the pressure chamber/mixing chamber, the backflow valve being configured to also prevent backflow of the liquid additive into the pressurized water source.

As to the term “weep chamber”, the word “weep” as recited is reasonably being interpreted by the Examiner to be merely a descriptive term for the chamber located in the region between the two one-way valve elements, which is not further defined by the recited structure of the backflow valve. Therefore, regardless of the definition of the term “weep”, such is merely being treated as a name for the chamber without further limiting the structure of the chamber. Moreover, even if the descriptive term “weep” is given patentable weight to the extent that the region between the two one-way valve elements functions to weep fluid, it is noted that the device shown by Chapin includes fluid vents (41 and 42; see Figures 4 and 5), which “weep” fluid from the region between the two one-way valves as a vacuum-breaking feature when back pressure in the pressure chamber occurs.

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3752

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chapin, in view of Ellison, USPN 4,930,686.

The claims will be examined as well as understood by the Examiner.

Chapin shows all of the elements as recited in claim 2, however Chapin does not expressly disclose the pressurized fluid/water source as being fluidly connected to the pressure chamber inlet by a “quick-disconnect” coupling.

Ellison shows a hand-held sprayer apparatus having a pressure chamber inlet adapted to be connected to the outlet of a “conventional garden hose or the like (126)” (see Figure 3; and column 2, lines 30-33) by a quick-disconnect coupling (125). It should be noted that quick-disconnect couplings are old and well known, and one having ordinary skill in the art would recognize the advantages of such a coupling over conventional threaded hose couplings, such as reducing the amount of time for the user to connect and disconnect the fluid source coupling elements since the user is not required to unscrew the cooperating threaded elements of a threaded hose coupling. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to replace the quick-disconnect coupling taught by Ellison, for the conventional threaded hose coupling shown by Chapin, thereby reducing the amount of time for the user to connect and disconnect the fluid source coupling elements.

14. Claims 12 and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Chapin, in view of Restive, USPN 6,896,203.

Art Unit: 3752

The claims will be examined as well as understood by the Examiner.

Chapin shows all of the elements as recited in claim 1, and further shows the apparatus including a sprayer handle portion (outer surface of 10) having an outlet (24) in communication with the pressure chamber, however, as discussed above under paragraph 11 of this office action, Chapin discloses the externally pressurized water source as being a conventional garden hose fed by a public water system, rather than expressly disclosing a "water tank".

Restive shows a hand-held sprayer apparatus, which requires an input of a pressurized water source, and teaches interchangeability of supplying the pressurized water from either a pressurized water tank (20) or through a conventional garden hose fed by a public water system (see column 4, lines 46-49). It should be noted that the concept of the interchangeability of these elements is old and well known, and one having ordinary skill in the art would recognize the advantages of using one for the other, such as, in this case, providing a pressurized water tank would eliminate the need to access to a public water system, in the event that the user is too far from a public water system. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to replace the pressurized water tank assembly taught by Restive, for the conventional garden hose/public water system source shown by Chapin, thereby eliminating the need to access to a public water system, in the event that the user is too far from a public water system.

15. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chapin, in view of Restive, as applied to claim 12 above, and further in view of Ellison.

The claims will be examined as well as understood by the Examiner.

Chapin, as modified by Restive, shows all of the elements as recited in claim 12, however Chapin does not expressly disclose the pressurized water tank as being fluidly connected to the sprayer handle by a “quick-disconnect” coupling.

Ellison shows a hand-held sprayer apparatus having a pressure chamber inlet adapted to be connected to the outlet of a “conventional garden hose or the like (126)” (see Figure 3; and column 2, lines 30-33) by a quick-disconnect coupling (125). It should be noted that quick-disconnect couplings are old and well known, and one having ordinary skill in the art would recognize the advantages of such a coupling over conventional threaded hose couplings, such as reducing the amount of time for the user to connect and disconnect the fluid source coupling elements since the user is not required to unscrew the cooperating threaded elements of a threaded hose coupling. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to replace the quick-disconnect coupling taught by Ellison, for the conventional threaded hose coupling shown by Chapin, thereby reducing the amount of time for the user to connect and disconnect the fluid source coupling elements.

***Allowable Subject Matter***

16. Claims 4, 8-10, 16-18, 23 and 24 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
17. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements set forth above under paragraphs 5-7 of this office action, or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

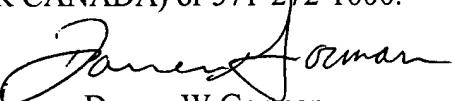
***Conclusion***

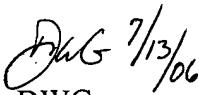
18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patents to Giacomini, Hoeptner, III, and Lacy, are cited as of interest.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Darren W. Gorman whose telephone number is 571-272-4901. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Scherbel can be reached on 571-272-4919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Darren W Gorman  
Examiner  
Art Unit 3752

 7/13/06  
DWG  
July 13, 2006